



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,903	08/28/2001	Peter Kamvysselis	EMS-02001	5153
26339	7590	11/14/2005		
MUIRHEAD AND SATURNELLI, LLC 200 FRIBERG PARKWAY, SUITE 1001 WESTBOROUGH, MA 01581				
			EXAMINER SHINGLES, KRISTIE D	
			ART UNIT 2141	PAPER NUMBER

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,903

Applicant(s)

KAMVYSSELIS, PETER

Examiner

Kristie Shingles

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6, 9, 10, 26-28, 33-35, 37-39, 55-57, 59-61 and 63-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6, 9, 10, 26-28, 33-35, 37-39, 55-57, 59-61 and 63-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Per Applicant's Request for Continued Examination:

Claims 26, 55 and 73-89 have been amended.

Claims 1-3, 7, 8, 11-25, 29-32, 36, 40-54, 58 and 62 have been cancelled.

Claims 90 and 91 are new.

Claims 4-6, 9, 10, 26-28, 33-35, 37-39, 55-57, 59-61 and 63-91 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/22/2005 has been entered.

Claim Objections

2. Regarding misnumbered claims 74 and 75, the corrected renumbering of claims 74 and 75 to claims 72 and 73, respectively, has been accepted by the Examiner.

Claim Rejections - 35 USC § 101

3. Regarding claims 25, 26-28, 55-61 and 81-89, the cancellation of claim 25 and the statutory subject matter correction to the language of claims 26, 55 and 81 are accepted by the Examiner. Therefore the rejection under 35 U.S.C. 101 is withdrawn.

Response to Arguments

4. Applicant's arguments with respect to claims 4, 26, 33, 55, 63, 72 and 81 filed on have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 4 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Williams et al* (USPN 6,721,286) in view of *Tan et al* (USPN 6,625,621).

a. **Per claim 4**, *Williams et al* teach the method of transmitting data from a source to a destination, comprising: receiving data from the source (col.1 lines 32-44), wherein the data is provided from the source in a first format and is provided to the network in a second format and is received by the destination in a third format, wherein the second format is different from at least one of: the first format and the second format (col.1 lines 45-55, col.5 lines 26-66 and col.8 lines 12-42).

Yet, *Williams et al* fail to explicitly teach providing the data to the destination using a network, wherein the data is acknowledged to the source as being successfully received at the destination prior to all of the data being provided to the network. However, *Tan et al*

Art Unit: 2141

disclose a sync server that acknowledges successful transmission of queued data changes to the record before all of the data is sent to the network (col.13 lines 14-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Williams et al* and *Tan et al* for the purpose of permitting an acknowledgment message to be sent before all of the data have been transmitted to the network; because it would provide a quicker response time in anticipation of all the data being transferred to the network—especially for large time-consuming packets.

b. **Claim 26** contains limitations that are substantially equivalent to claim 4 and is therefore rejected under the same basis.

7. **Claims 33, 55, 59, 63, 64, 68, 72, 73, 77, 81, 82, 86, 90 and 91** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Achiwa et al* (USPN 6,643,750) in view of *Williams et al* (USPN 6,721,286) in view of *Tan et al* (USPN 6,625,621).

a. **Per claims 33, 55, 63, 72 and 81**, *Achiwa et al* teach a method of transferring data from a first storage device to a second storage device, comprising;

- synchronously transferring the data from the first storage device to a first buffer device (col.3 lines 22-32; data is synchronously transferred between the host device and the main storage apparatus);
- asynchronously transferring the data from the first buffer device to a second buffer device (col.3 lines 33-42; asynchronous transferring from the main storage apparatus to the substorage apparatus); and
- synchronously transferring the data from the second buffer device to the second storage device (col.3 lines 43-58; transferring the data from the substorage to the second storage).

Yet *Achiwa et al* fail to explicitly teach providing the data from the first buffer device to the second buffer device using a network, wherein the data is provided from the first storage device in a first format and is provided to the network in a second network that is different from the first format. However *Williams et al* teach the data is provided from the source in a first format and is provided to the network in a second format and is received by the destination in a third format, wherein the second format is different from at least one of: the first format and the second format (col.1 lines 45-55, col.5 lines 26-66 and col.8 lines 12-42).

Yet *Achiwa et al* and *Williams et al* fail to explicitly teach wherein the first buffer device acknowledges successful transfer of the data to the first storage device prior to the first buffer device completing transfer of the data to the second buffer device. However, *Tan et al* disclose a sync server that acknowledges successful transmission of queued data changes to the record before all of the data is sent to the network (col.13 lines 14-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Achiwa et al* and *Williams et al* with *Tan et al* for the purpose of permitting an acknowledgment message to be sent before all of the data have been transmitted to the network; because it would provide a quicker response time in anticipation of all the data being transferred to the network—especially for large time-consuming packets. Furthermore it is obvious to provide data in various formats, in order to service transferred data in formats consistent with the devices receiving the data.

b. **Per claim 37**, *Achiwa et al* and *Williams et al* with *Tan et al* teach the method of claim 33, *Williams et al* further teach wherein the second storage device receives the data in a

Art Unit: 2141

first format different from a second format used to transmit the data over the network (col.1 lines 45-55, col.5 lines 26-66 and col.8 lines 12-42).

c. **Claims 59, 64, 68, 73, 77, 82 and 86** are substantially similar to claim 37 and are therefore rejected under the same basis.

d. **Per claim 90**, *Achiwa et al* and *Williams et al* with *Tan et al* teach the method of claim 33, *Tan et al* further teach wherein the first buffer device acknowledges successful transfer of the data to the first storage device prior to all of the data being provided to the network (col.13 lines 14-40).

e. **Claim 91** is substantially similar to claim 90 and is therefore rejected under the same basis.

8. **Claims 5, 6, 9, 10, 27 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Williams et al* (USPN 6,721,286) in view of *Tan et al* (USPN 6,625,621) and in further view of Applicant's Admitted Prior Art (hereafter referred to as *AAPA*).

a. **Per claim 5**, *Williams et al* and *Tan et al* teach the method of claim 4 as applied above, yet fail to distinctly teach the first format being RDF format. However, in *AAPA* discloses use of the RDF format when transmitting data from a storage device to a host (page 2 line 4-page 3 line 14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Williams et al*, *Tan et al* with *AAPA* for the purpose of employing communication with remote data facilities (RDF); because it would permit

Art Unit: 2141

connecting and communication among storage devices in order to implement a redundant data mirroring system.

b. **Claims 9 and 27** are substantially similar to claim 5 and are therefore rejected under the same basis.

c. **Per claim 6**, *Williams et al*, *Tan et al*, and *AAPA* teach the method of claim 5 as applied above, *Williams et al* further teach the method wherein the second format is one of TCP/IP and UDP (col.11 lines 6-17, col.12 lines 41-55, col.13 line 55-col.14 line 59 and col.16 lines 2-12 and col.18 lines 17-24).

d. **Claims 10 and 28** are substantially similar to claim 6 and are therefore rejected under the same basis.

9. **Claims 34, 35, 38, 39, 56, 57, 60, 61, 65, 66, 67, 69, 70, 71, 74, 75, 76, 78, 79, 80, 83, 84, 85, 87, 88 and 89** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Achiwa et al* (USPN 6,643,750) and *Williams et al* (USPN 6,721,286) in view of *Tan et al* (USPN 6,625,621) and in view of Applicant's Admitted Prior Art (hereafter referred to as *AAPA*).

a. **Per claim 34**, *Achiwa et al* and *Williams et al* with *Tan et al* teach the method of claim 33 as applied above, yet fail to distinctly teach the first format being RDF format. However, in *AAPA* discloses use of the RDF format when transmitting data from a storage device to a host (page 2 line 4-page 3 line 14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Achiwa et al*, *Williams et al* and *Tan et al* with *AAPA* for the purpose of employing communication with remote data facilities (RDF); because it

Art Unit: 2141

would permit connecting and communication among storage devices in order to implement a redundant data mirroring system.

b. **Claims 38, 56, 60, 65, 69, 74, 78, 83 and 87** are substantially similar to claim 34 and are therefore rejected under the same basis.

c. **Per claim 35**, *Achiwa et al*, *Williams et al* and *Tan et al* with *AAPA* teach the method of claim 34 as applied above, *Williams et al* further teach the method wherein the second format is one of TCP/IP and UDP (col.11 lines 6-17, col.12 lines 41-55, col.13 line 55-col.14 line 59 and col.16 lines 2-12 and col.18 lines 17-24).

d. **Claims 39, 57, 61, 66, 67, 70, 71, 75, 76, 79, 80, 84, 85, 88 and 89** are substantially similar to claim 35 and are therefore rejected under the same basis.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: *Ellis* (USPN 6,421,280), *Nakano et al* (US 2005/0120093), *Walker et al* (USPN 6,122,629), *Bennett et al* (USPN 6,775,707), *Odom et al* (USPN 6,957,268).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00PM.

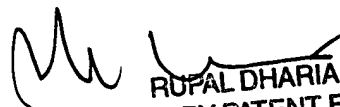
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2141

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER